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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
PUBLIC MEETING

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IN RE:

DIAMOND HEAD OIL SUPERFUND SITE

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July 22, 2009  
6:00 p.m.

Meeting held in the above-entitled matter at  
Kearny Town Hall, 402 Kearny Avenue, Kearny,  
New Jersey, before Linda A. Marino, Registered  
Professional Reporter, Certified Court  
Reporter, and Notary Public within and for the  
State of New Jersey.

299599  


1 P R E S E N T :

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3 WANDA AYALA,  
4 Community Involvement Coordinator, EPA

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6 GRISELL V. DIAZ-COTTO,  
7 Remedial Project Manager, EPA

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OTHER REPRESENTATIVES:

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12 ANDREW B. JUDD,  
13 Hydrogeologist, CH2M Hill

14

15 CHUCK NACE,  
16 Environmental Toxicologist, EPA

17

18 JOHN PRINCE,  
19 Section Chief, EPA

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1 MS. AYALA: Good evening. My  
2 name is Wanda Ayala, and I am the  
3 Community Involvement Coordinator  
4 assigned to the Diamond Head Oil  
5 Superfund Site. I'm here tonight with  
6 John Prince, our Superfund manager; with  
7 Grisell Diaz-Cotto, who is the remedial  
8 project manager; with Chuck Nace, who's  
9 an EPA risk assessor; and with Andy  
10 Judd, who's a contractor for the site.

11 We're here to present the  
12 proposed plan for the Diamond Head Oil  
13 site, to discuss the preferred remedy  
14 for the site, to go over our  
15 recommendations for addressing the  
16 contamination, and to discuss our  
17 rationale for this recommendation.

18 The public comment period for  
19 this proposed plan started on July 14,  
20 and it's for thirty days and we are  
21 required to receive public comments.  
22 All comments will be duly noted tonight  
23 by our stenographer, Linda.

24 It is important that everyone  
25 here know that EPA's community

1 involvement program is committed to  
2 promoting communication between the  
3 public and the agency. Active public  
4 involvement and transparency is crucial  
5 to the success of any public project,  
6 and our community involvement activities  
7 at this site are designed to inform you,  
8 involve you, and include you in the  
9 decision making process since this is  
10 your community.

11 I'd like to thank you all for  
12 being here tonight. And I was going to  
13 set some ground rules, but since we have  
14 a public of two, I ask that if you have  
15 any questions, that you keep them until  
16 the end of the presentation. And  
17 whenever you ask a question, you need to  
18 state your name because Linda needs to  
19 record it. Federal regulations require  
20 that we have a transcript of this  
21 meeting to help us capture your input.

22 Now I'd like to turn it over to  
23 John, who will walk you through the  
24 Superfund process and information about  
25 the site.

1 MR. PRINCE: Thank you, Wanda.

2 MS. AYALA: You're welcome.

3 MR. PRINCE: So, this first slide  
4 is a summary of the whole Superfund  
5 process, and we can get you a cut of  
6 it. And I'm not going to try and go  
7 through all the pieces because we don't  
8 need to talk about all the pieces. I'm  
9 going to hit on some of the highlights.  
10 And the print is too small anyway. So,  
11 we'll not try and do any more than is  
12 necessary.

13 So, let me tell you a little bit  
14 about Superfund. Congress, the U.S.  
15 Congress, created the Superfund program  
16 in 1980 to deal with uncontrolled  
17 releases of hazardous substances at many  
18 sites that have been identified in the  
19 past, say, ten years.

20 Prior to that, there were a  
21 number of states, including New Jersey,  
22 that already had kind of an  
23 infrastructure for dealing with  
24 hazardous waste sites, and, in fact, the  
25 Superfund law is modeled, at least in

1 part, on law that already existed in New  
2 Jersey.

3 But that certainly wasn't the  
4 case across the country, so Congress  
5 wrote an unified set of instructions for  
6 EPA to have resources, enforcement  
7 authority, and expertise to start  
8 addressing these sites around the  
9 country. And then EPA ramped up to have  
10 the skills over the following years; the  
11 skills to actually be able to address  
12 these sites.

13 Superfund really has two  
14 functions; an emergency response  
15 function, and a long-term cleanup  
16 component. And we come in and address  
17 sites when we're invited. In other  
18 words, we don't make our own decisions,  
19 the states really say: Here's a problem  
20 that we feel is large and complex and  
21 maybe beyond our funding or staffing  
22 abilities.

23 And they invite us in.

24 For the Diamond Head site itself,  
25 we did not have any emergency response

1           role. The site had been sitting idle  
2           for a number of years before New Jersey  
3           asked EPA to consider the site for  
4           listing in 2002.

5                       Now, having been placed on the  
6           Superfund list doesn't mean that there  
7           needs to be a cleanup. What it means is  
8           that a site is -- has enough unknown  
9           components and enough contamination that  
10          may or may not be, say, moving off of  
11          the site for EPA to need to come and do  
12          a study.

13                      And, so, in this long-term  
14          cleanup phase, the first stage of our  
15          work is kind of an exhaustive study  
16          called the Remedial Investigation and  
17          Feasibility Study. That looks at the  
18          nature and extent of the contamination  
19          and then evaluates remedial options for  
20          cleaning it up.

21                      I just want to touch on two other  
22          parts of the Superfund program, as  
23          opposed to all of these parts, and that  
24          is the enforcement component of the law  
25          and then how we actually select a

1 remedy.

2 Superfund has very strong  
3 enforcement components that allow us to  
4 get information to identify potentially  
5 responsible parties, companies that  
6 might have done spilling or that sort of  
7 thing, and also allow us to pursue land  
8 owners under certain circumstances to  
9 either reimburse EPA for the cost of  
10 cleanup or, in some cases, have parties  
11 roped into a -- some kind of an  
12 enforceable agreement, whereby we would  
13 oversee that party to actually perform  
14 the work.

15 In this case, EPA -- the  
16 companies, rather, that had created the  
17 site in the first place were all out of  
18 business long before we got involved,  
19 and there really isn't an opportunity to  
20 that we know of there. And at the  
21 beginning of our investigation stage,  
22 when the site was first listed, we  
23 concluded that there really wasn't a  
24 viable party that could step in and do  
25 this work. So, the work's been done

1 with -- the work is being done using  
2 federal funds.

3 Now how we select a remedy, I'll  
4 touch on that, describe some details of  
5 the site, little of the site history,  
6 and then we'll move on to Grisell's  
7 portion of the presentation.

8 When EPA feels it has enough  
9 information about a site to proceed to  
10 select a remedy, Congress actually put a  
11 check on us; we can't just go and do  
12 that by ourselves, we need to prepare  
13 something called a Feasibility Study,  
14 which doesn't describe one option but  
15 actually looks at a variety of remedial  
16 choices for cleaning up the site.

17 And then we need to come and  
18 present that into a community in a  
19 written form -- that's the proposed plan  
20 -- and at a meeting like this so that we  
21 can get input. We then get that  
22 feedback in writing or recorded tonight  
23 and need to evaluate it.

24 And, using our preferred remedy  
25 and that information, we make a finding,

1 something called a Record of Decision.  
2 That is a written document that  
3 memorializes the remedy for the site and  
4 any responses to the public's input that  
5 might have affected the remedy or, you  
6 know, our sort of response to that.

7 We do that in partnership with  
8 the State of New Jersey. They're our  
9 sister agency in this case. So, they  
10 have already seen and endorsed our  
11 preferred plan for the site.

12 So, let me switch gears. We're  
13 going to talk about the site itself.  
14 I'm going to refer to some figures, and  
15 we will start by putting ourselves on  
16 the street map.

17 This is -- we'll get a better  
18 resolution in a minute, but this is  
19 Harrison Avenue and this is Route 280  
20 along the bottom, and we are in a  
21 section of Kearny that is very sparsely  
22 populated and the nearest homes are  
23 probably about half a mile away.

24 This is bringing us in a little  
25 closer. Again, here's Route 280 on the

1 bottom, here's Harrison Avenue, and the  
2 activities -- which I'll bring up  
3 another picture in a minute -- the  
4 activities of the site took place right  
5 here in the center.

6 This is an entrance ramp for 280,  
7 this is a place called the Campbell  
8 Foundry, and this is the relatively new  
9 Wal-Mart facility. Water, surface  
10 water, drains this way to something  
11 called Frank's Creek, which is right  
12 here, and Frank's Creek discharges into  
13 the Passaic River.

14 Now, this land was marshlands if  
15 you go back maybe two hundred years, and  
16 it has slowly been filled over time.  
17 It's generally been used as industrial  
18 property, including the facility that we  
19 are focussing on, and then landfills.

20 And the one other feature that I  
21 will point out because we're going to  
22 talk about it a little later is this  
23 landfill here, which is called the 1-D  
24 landfill. It's one of the MSLA  
25 landfills. It's about 95 acres, and

1           it's just across 280 from the site.

2                       Now we'll go one step closer and  
3           we're on to -- you can look at these  
4           figures here or the figure up on the  
5           board. This is a current photograph.  
6           And by showing this piece, though, I  
7           don't want to mislead you; this is  
8           narrowing into a little parcel, but I  
9           don't want to give the impression that  
10          that's the whole of the site. That's  
11          the whole of the subject of tonight's  
12          meeting, but for reasons you'll see in a  
13          minute, our investigations have gone  
14          outside of this parcel.

15                      This piece is about fifteen acres  
16          on the -- the facility sat right here,  
17          on the sort of eastern edge of the lot.  
18          And there's a number of landfill pieces  
19          that -- sort of surrounding the edges of  
20          it now. And we'll go through some  
21          history, and you'll learn a little bit  
22          about those.

23                      So, I'm going to talk about --  
24          with regard to site history, I'll just  
25          talk about four things: I'll talk

1 about, obviously, Diamond Head Oil  
2 Refinery; the neighboring landfilling  
3 businesses; the construction of I-280;  
4 and then sort of the end of the Diamond  
5 Head facility that took place in '79.

6 So, Diamond Head Oil Refinery was  
7 one of a number of companies that  
8 operated up and down the eastern -- the  
9 East Coast of the United States that  
10 were in the business of collecting waste  
11 oil from gas stations and other places,  
12 and then reprocessing it through some  
13 magic into material that they could  
14 reuse. And they -- these variety of  
15 companies, most of which were owned by  
16 essentially one entity, would send this  
17 waste oil to facilities like this.

18 And here is an aerial photograph  
19 from 1976, and here is about a four-acre  
20 piece of land that is just a little bit  
21 elevated that was the Diamond Head  
22 facility, which started operating in the  
23 1940s and finished its run in 1979.

24 Now, the key feature from the  
25 point of view of this facility is,

1 obviously, there's lots of tanks and  
2 businesses -- the business' pieces of  
3 equipment. They would bring in this  
4 waste oil and they would re-refine it,  
5 which is essentially, we think, kind of  
6 sending it back to the refinery to sort  
7 it out into usable components. It  
8 seemed that most of it was going into a  
9 kind of heating oil and then being  
10 resold.

11 But what I want to point out is  
12 this black feature here, which runs  
13 quite a bit off of that fifteen-acre lot  
14 that you see above me. And it's  
15 essentially a mixture of oil and water.  
16 We call this the oil lake. It's about  
17 -- it's been estimated that it was about  
18 six to seven acres in size.

19 We don't know exactly how it got  
20 there, whether they were actually  
21 storing some of this waste oil in this  
22 sort of open water area behind the  
23 facility or whether it was just sort of  
24 running out of their facility because it  
25 was sloppy or whether possibly they

1           could refine certain of their waste oils  
2           into reusable products and then they  
3           just ended up with stuff they had to get  
4           rid of and maybe that's what this is.  
5           We don't really know. But, obviously,  
6           it's gone quite a distance from the  
7           original land.

8                        So, I'm going to also point out  
9           one other feature here, and that is this  
10          -- I'm going to run a line right down  
11          here, sort of top to bottom. This is  
12          that 1-D Landfill that I mentioned  
13          before, and this is an access road to  
14          get up onto that landfill. There's  
15          access roads on either end of it.

16                       And, so, this end of that  
17          fifteen-acre lot is actually filled --  
18          sort of a long filled area, and it's  
19          pretty clear that this was -- it was  
20          filled with municipal waste. We've done  
21          some test pitting, and it's pretty clear  
22          it's filled primarily with municipal  
23          waste, and they built it up so they  
24          could have access to the landfill.

25                       Now, starting in 1976 and ending

1 a couple years later, the New Jersey  
2 Department of Transportation began the  
3 construction of I-280, which now fills  
4 the southern end of our area of  
5 interest.

6 In 1976, they got to this part of  
7 the site and concluded that they  
8 actually owned quite a bit of this land  
9 where the oil lake was. They concluded  
10 they couldn't build on the oil lake.  
11 They had to get rid of it, so they paid  
12 to have it pumped out.

13 It took about, I think, ten  
14 months. It was somewhere in the  
15 neighborhood of eleven million gallons  
16 of oil and water that were removed. It  
17 was pumped into tanker trucks and taken  
18 to other facilities that did this sort  
19 of waste oil business.

20 When they got the lake pumped  
21 out, there was a layer of kind of a  
22 messy sludge at the bottom, and they  
23 concluded that they couldn't build on  
24 that either. So, that material was  
25 scraped off. It totalled approximately

1 230,000 cubic yards of material. And  
2 from DOT's records from the time, they  
3 redeposited it in the ground in a couple  
4 of locations.

5 The largest piece is actually up  
6 on top of the 1-D landfill. There are  
7 several other -- I'll refer to this  
8 finished picture over here. There is  
9 this landfill piece that I mentioned  
10 before; there may be some of that  
11 material in here, although we haven't  
12 seen it. And then there's something in  
13 this right-of-way to the highway that's  
14 actually owned by DOT that's a mound.

15 And we've done some sampling of  
16 it, and there is something that looks  
17 like sludge in it, so that apparently is  
18 where a good portion of that material  
19 went as well. And we still have some  
20 investigations of that material to do of  
21 our own to figure out whether we need to  
22 take an action with regard to that as  
23 well.

24 One of the comments that we've  
25 read in DOT's records contemporaneous

1 with this activity was after the removal  
2 of the oil lake and after the removal of  
3 the sludge, they indicated that there  
4 was still a layer of this oily petroleum  
5 material in the ground, and it's that  
6 material that's really the focus of our  
7 action that we're discussing tonight.  
8 They saw it -- they called it the  
9 underground oil lake. So, that's really  
10 what we're focussing in on with this  
11 action.

12 That's about all that I wanted to  
13 cover, except that Diamond Head, the  
14 company, closed down in 1979. The owner  
15 had some legal troubles about the same  
16 time, and we think that there's some  
17 connection between those two; the  
18 closure and his legal troubles. And the  
19 place was actually demolished a couple  
20 years later, and during that -- it was  
21 really a cleanup, the first cleanup that  
22 took place at the site.

23 And during that work, some  
24 environmental samples were collected,  
25 and those environmental samples were the

1 first evidence that -- in the record  
2 that indicate that, in fact, what  
3 Diamond Head was bringing to the site  
4 wasn't just petroleum waste, it was some  
5 other things, with PCBs and other  
6 volatile components that were probably  
7 getting mixed into his products, and  
8 some of which, obviously, are -- have  
9 ended up in the ground.

10 So, we're looking at, as a  
11 consequence, this relatively large area  
12 for the whole RI/FS. We're looking at  
13 the groundwater. We have a lot of  
14 information but need a little bit more  
15 on the soils in the whole of this area.  
16 And then we need to really understand  
17 about surface water, movement of this  
18 material over time, and whether there's  
19 a component of that.

20 But that's to come. Right now,  
21 we're focussing on really this one area,  
22 which Grisell is going to tell us about  
23 by describing the details of the RI/FS  
24 to date and what we found and then what  
25 our proposal is to address it.

1 MS. DIAZ-COTTO: Good evening.

2 I'm going to give you a preview of what  
3 I'll be presenting to you tonight.

4 The first thing I'll be  
5 discussing is the Remedial Investigation  
6 study to date, its findings and  
7 conclusions. Then I'll provide you with  
8 information with regarding the principal  
9 threat waste, the remedial objectives  
10 for this waste, and the risks  
11 attributable to the site.

12 Following, I'll explain the  
13 rationale for the remedial phases  
14 approach that we are following for the  
15 site. I will then proceed with the  
16 presentation of the remedial  
17 alternatives, the evaluation of these  
18 alternatives, and, finally, with the  
19 recommendation for the preferred  
20 alternative.

21 Let me start, however, with the  
22 definition of a term I'll be using  
23 throughout my presentation; LNAPL.

24 LNAPL stands for Light Nonaqueous  
25 Phase Liquids, which are liquids that

1 are sparingly soluble in water and less  
2 dense than water. For example, oil is  
3 an LNAPL because it flows on top of  
4 water and does not mix with water.

5 In 2002, EPA began a Remedial  
6 Investigation to determine the nature  
7 and extent of the problems posed by the  
8 site. The Remedial Investigation  
9 studies to date have outlined, in  
10 addition to all the findings that I'll  
11 be discussing later, two areas of  
12 potential source areas where LNAPL may  
13 be continuing to release contamination  
14 to the environment.

15 This area is outlined in red.  
16 The processing section of the site, once  
17 containing two buildings, multiple  
18 above-ground storage tanks, as you can  
19 see there, drum storage areas, and  
20 possibly underground feeds. And second,  
21 the remnants of the oil lake, estimated  
22 in 1977 took over an area of six to  
23 seven acres, located over the southern  
24 section of the site and extending  
25 outside the site's fenced boundaries to

1 the east and south.

2 There is evidence of oil  
3 contamination in nearly every boring  
4 installed within the fifteen-acre fenced  
5 property and in many borings to the  
6 southeast. Because of this layer of oil  
7 contamination across the site, the RI  
8 studies performed to date have used a  
9 number of different methods to document  
10 the nature and extent of the LNAPL and  
11 to identify the more severely  
12 contaminated areas of the site.

13 Using these meters, several  
14 characteristics of the LNAPL were  
15 established. First, LNAPL is present in  
16 the subsurface throughout most of the  
17 investigated area, albeit under  
18 substantial variation and concentration  
19 across the site.

20 Second, LNAPL was measured in  
21 wells in three areas of the site; one in  
22 the former process area, and two within  
23 the footprint of the oil lake. This  
24 means that when the well cap is moved,  
25 we find a thick layer of oil rather than

1 water.

2 Third, the vertical distribution  
3 of LNAPL exists at two intervals; first  
4 at the water table approximately two  
5 feet below ground surface, and, second,  
6 as distinct deeper internal depths at  
7 ten to sixteen feet below ground surface  
8 within the silted soil. However, the  
9 bulk of LNAPL-containing soil is located  
10 near the water table within the filled  
11 layer.

12 Many of those compounds were  
13 found in the LNAPL, including benzene  
14 and other petroleum compounds, PCBs, and  
15 a variety of metals. Within the LNAPL,  
16 there are pockets of less weathered  
17 LNAPL of a high saturation that present  
18 a leaching concern to groundwater.  
19 These are LNAPL areas that may be  
20 considered to present a risk for  
21 leaching contaminants to groundwater.  
22 This highly contaminated material is  
23 what we are focussing on with this  
24 proposed action.

25 In addition to the LNAPL findings

1 discussed before, the remedial  
2 investigation found soil, groundwater,  
3 sediment, and surface water  
4 contamination attributable to the site.

5 Evidence based on site-specific  
6 data concluded that LNAPL detected at  
7 the site was separated into areas where  
8 LNAPL material is considered to  
9 represent a principal threat and areas  
10 where LNAPL can be considered to be a  
11 lower level threat and for which  
12 appropriate measures will be considered  
13 in future feasibility studies.

14 The total area of the principal  
15 threat of LNAPL is roughly 176,000  
16 square feet, a volume of 45,825 cubic  
17 yards, including 2,593 cubic yards where  
18 LNAPL floating product is found in wells  
19 constitutes the principal threat LNAPL.

20 Remedial action objectives, which  
21 are a general description of what the  
22 response action is expected to  
23 accomplish, were developed for the  
24 principal threat LNAPL wastes to address  
25 the human health risks and environmental

1 concerns of the Diamond Head Oil Site.

2 The focus of this early action is  
3 to address LNAPL that constitutes a  
4 principal threat at the site. The  
5 principal threat LNAPL is physically  
6 similar to free oil product. Oil  
7 products are toxic to ecological  
8 receptors and humans through direct  
9 contact, incidental ingestion, and  
10 inhalation pathways.

11 Potential exposure to ecological  
12 receptors and humans from the high  
13 concentration LNAPL that is present at  
14 the site could result in adverse health  
15 effects. It is, therefore, important  
16 that steps be taking taken to eliminate  
17 or reduce the level of LNAPL at the  
18 site.

19 Reducing or eliminating the LNAPL  
20 at the site would reduce potential  
21 exposure to free product, and that's an  
22 important early step in managing the  
23 site risk. However, it is not expected  
24 to eliminate the overall risks and  
25 hazards to ecological receptors or

1 humans because of residual contamination  
2 that will remain on the site. This  
3 residual contamination will be addressed  
4 in subsequent actions and will be  
5 accompanied by full ecological and human  
6 health risk assessments.

7 In addition to removing the  
8 potential exposure of LNAPL at the site,  
9 reducing or eliminating the LNAPL will  
10 also limit the potential migration,  
11 which would aid in investigating and  
12 selecting a remedy for the remainder of  
13 the site.

14 The first operable unit has been  
15 identified as an early action to address  
16 a principal threat LNAPL. A second  
17 Operable Unit will address residual soil  
18 contamination attributable to the site,  
19 including lower level threat LNAPL, the  
20 on-site landfilled area, the I-280  
21 right-of-way berms, and groundwater and  
22 sediment contamination.

23 Site studies are ongoing. For  
24 example, new groundwater monitoring  
25 wells were installed earlier in 2009 on

1 a number of neighboring properties to  
2 fully assess the extent of the  
3 groundwater problems posed by the site.  
4 Field investigations for the  
5 comprehensive Remedial Investigation of  
6 the site are expected to be complete in  
7 2010, at which time EPA can proceed with  
8 evaluating remedial alternatives for the  
9 entire site.

10 While further studies of the  
11 landfill site are required, the history  
12 of site activities and the test trenches  
13 already installed support EPA's  
14 conclusion that the landfill is not a  
15 source of LNAPL.

16 Now let's go to the remedial  
17 alternatives for the site.

18 The Superfund program requires  
19 that the no action alternative be  
20 considered as a baseline for comparison  
21 for the other alternatives. The no  
22 further action alternative does not  
23 include any physical remedial measures  
24 beyond those response actions already  
25 completed that address the LNAPL



1 biocell. The augmented LNAPL material  
2 would be placed in the biocell for  
3 treatment and capped.

4 After performance sampling and  
5 final confirmation sampling to  
6 demonstrate that the LNAPL wastes have  
7 been destroyed through biological  
8 degradation, the biocell components will  
9 be dismantled. Areas where a measurable  
10 layer of floating LNAPL product is found  
11 in monitoring wells may not be amenable  
12 to effect treatment in the biocell.

13 These areas will, therefore, be  
14 excavated and transported for off-site  
15 disposal.

16 Soil washing. Under this  
17 alternative, the remedial target areas  
18 would be isolated with a sheet pile wall  
19 and principal threat LNAPL areas  
20 excavated. The excavated material would  
21 then be treated on site using soil  
22 washing.

23 The excavated soils and LNAPL  
24 wastes would be placed in a slurry  
25 reactor vessel and combined with a

1 washing fluid that would wash the LNAPL  
2 from the soil particles. This  
3 technology requires a water treatment  
4 facility to treat the LNAPL and  
5 contaminants of concern in the washing  
6 fluid so it can be reused. The treated  
7 soil material would be tested for  
8 compliance with the cleanup goals and  
9 returned to the excavated areas.

10 As with Alternative 2, areas  
11 where a measurable layer of floating  
12 LNAPL product is found in monitoring  
13 wells may not be amenable to soil  
14 washing, and this alternative assumes  
15 that these areas will be excavated,  
16 treated as necessary, and transported  
17 for off-site disposal.

18 While this alternative, like  
19 Alternative 2, would result in  
20 contaminants remaining within the  
21 remedial target areas above health-based  
22 level, this action is expected to  
23 address the principal threat LNAPL as a  
24 final action. A subsequent Record of  
25 Decision will be required to make a

1 final determination about the underlying  
2 constituents that will remain within the  
3 treated soil.

4 Therefore, the need for a review  
5 of the site every five years will be  
6 made at that time. If justified by the  
7 Remedial Investigation, additional  
8 remedial actions may be implemented to  
9 remove or treat such wastes.

10 The fourth alternative,  
11 excavation and off-site disposal. Under  
12 this one, the remedial target areas  
13 would be isolated with a sheet pile wall  
14 and the principal threat LNAPL areas  
15 excavated.

16 As with Alternatives 2 and 3,  
17 dewatering will be required prior to  
18 excavation, and the removal water would  
19 need to be treated prior to discharge.  
20 The excavated material will then be  
21 stabilized on site to allow for  
22 transportation for off-site disposal.  
23 The excavated areas will then be  
24 backfilled with clean fill.

25 Sampling would be performed

1 during remedial design to delineate the  
2 extent of the remedial target areas, but  
3 no performance monitoring would be  
4 required. The Feasibility Study  
5 estimates that this alternative could be  
6 implemented in approximately one year.

7 Nine criteria, as you see there:

8 Overall protectiveness of human health  
9 and the environment; long-term  
10 effectiveness, short-term effectiveness;  
11 implementability; cost; and the rest.  
12 They're used to evaluate the different  
13 remediation alternatives individually  
14 and against each other in order to  
15 select a remedy. They provide profile  
16 their relative performance of each  
17 alternative against the nine criteria,  
18 noting how it compares to the other  
19 options under consideration.

20 Once the alternatives have been  
21 fully described and individually  
22 assessed against the nine criteria, a  
23 comparative analysis is conducted to  
24 evaluate the relative performance of the  
25 alternatives in relation to each

1 specific evaluation criteria.

2 The purpose of this comparative  
3 analysis is to identify the advantages  
4 and disadvantages of each alternative  
5 relative to one another so the tradeoffs  
6 that will have to be balanced to select  
7 a remedy are fully understood.

8 The proposed plan that you have a  
9 copy of outlines this process, the  
10 process that we went through, in  
11 selecting an alternative; however, a  
12 full presentation of both individual and  
13 comparative analysis of alternatives is  
14 included in the feasibility studies for  
15 this site.

16 Based on this evaluation of the  
17 various alternatives, EPA and the New  
18 Jersey Department of Environmental  
19 Protection recommend Alternative 2, the  
20 on-site biocell along with excavation  
21 and off-site disposal of the more highly  
22 contaminated material as a preferred  
23 alternative to address the principal  
24 threat LNAPL.

25 I will in a moment ask Andrew

1 Judd to present you with the technical  
2 details of the preferred alternative.  
3 However, I would like to remind you that  
4 although this first operable unit has  
5 been identified as an early action to  
6 address the principal threat LNAPL, a  
7 second operable unit for which studies  
8 are ongoing will address residual soil  
9 contamination attributed to the site,  
10 including lower level threat LNAPL, the  
11 on-site landfill area, the right-of-way  
12 berms, and groundwater and sediment  
13 contamination.

14 MR. PRINCE: Wanda, let's have --  
15 any parts of Andy's presentation that  
16 come up as response to questions, we'll  
17 have him present that.

18 Why don't we open the floor?

19 MS. AYALA: So, we'll open up the  
20 floor to questions and comments.

21 MR. BARONE: You said Alternative  
22 2, right?

23 MS. AYALA: State your name.

24 MR. BARONE: My name is Joe  
25 Barone.

1                   Just so I understand, Alternative  
2                   2 is an on-site cleanup?

3                   MR. PRINCE:    Yes.

4                   MR. BARONE:    And then you said  
5                   there's some areas that you would send  
6                   for outside disposal.

7                   What areas would that be?

8                   MR. PRINCE:    The material that --  
9                   the 45,000 yards that we identified that  
10                  constituted this sort of worst part of  
11                  the site, there are certain sections of  
12                  it that are essentially pure oil.

13                  And bioremediation is kind of the  
14                  standard method of dealing with  
15                  petroleum-contaminated sites.  Even  
16                  though there are lots of contaminants on  
17                  this site, this action is primarily  
18                  focussing in on that flowing material or  
19                  that more highly contaminated material,  
20                  and it's a lot of petroleum.

21                  So, we think that bioremediation  
22                  or this biocell is the best fit for the  
23                  site.  But because some of it is so  
24                  heavily contaminated, we think it will  
25                  actually slow the whole process down and

1 stretch it out a bit. So, as a way to  
2 sort of balance that out, our plan is to  
3 pull the worst of it out and then --  
4 it's still a pretty large quantity, but  
5 a relatively large quantity would then  
6 be subject to this biocell treatment on  
7 the site.

8 So, how much is that? It's  
9 probably at least that 3,000 yards of  
10 material that's around those couple of  
11 wells where there's literally -- you  
12 know, you open the well cap and there's  
13 five or six feet of oil and water  
14 because there's so much oil in the  
15 ground there.

16 MR. BARONE: And what type of  
17 place would you send it to, a landfill?

18 MR. PRINCE: It would go to a  
19 facility -- it would need to be  
20 solidified first, because we couldn't  
21 ship a liquid waste like that, and there  
22 would be a component of it that would be  
23 liquid waste. And then EPA has  
24 regulations governing the disposal of  
25 that sort of material.

1           My guess is that it might have to  
2 go to a hazardous waste landfill and may  
3 require treatment before it can even get  
4 into that landfill. But we won't know  
5 that until we actually --

6           MR. BARONE: So, a TSDF first and  
7 then to a landfill?

8           MR. PRINCE: It would probably go  
9 to Subtitle C facility that could have  
10 the treatment component right there and  
11 then put in the landfill. We're not  
12 certain -- there is some hot -- you seem  
13 to know something about the structure  
14 construction of landfill.

15          MR. BARONE: A little bit.

16          MR. PRINCE: So, let me speak to  
17 that.

18           There is a possibility that you  
19 could take this contaminated soil, ship  
20 it to a facility off the site, have it  
21 treated, have it meet the standards for  
22 putting it into a Subtitle D landfill,  
23 but that would require us to find some  
24 off-site treatment facility, ship it  
25 there, get it treated there, and then

1 send it to another place to have it  
2 disposed of.

3 And our experience with that  
4 multiple step process is it makes more  
5 sense to just send it to a place where  
6 you could treat it and put it in the  
7 ground right there.

8 MR. BARONE: There's no concern  
9 about metals?

10 MR. PRINCE: I suspect that when  
11 we test this material to determine what  
12 to do with it for off-site disposal,  
13 metals will probably not be a  
14 determining factor.

15 MR. BARONE: Thank you.

16 MS. AYALA: Any other questions?  
17 Comments?

18 MR. BARONE: You said something  
19 about PCBs.

20 What kind of levels are we  
21 talking about?

22 MR. PRINCE: Andy, what's the  
23 highest level of PCBs we've seen?

24 MR. JUDD: Generally, low.  
25 Numerically, it's in the less than a

1 hundred and tens range.

2 MR. BARONE: So, it's not TANSLA  
3 regulated?

4 MR. PRINCE: No, for disposal, it  
5 wouldn't be TANSLA regulated, and for  
6 managing the site it wouldn't require  
7 us...

8 MR. JUDD: At very few locations  
9 also across the fifteen acres we've  
10 evaluated; less than ten locations, I  
11 think less than five locations we have  
12 found PCBs.

13 MR. BARONE: All right.

14 MR. PRINCE: These earlier  
15 samples that I mentioned collected in  
16 the early eighties, when the facility  
17 came down, there's tons of wastes that  
18 were removed at the time, and quite a  
19 bit of it had PCBs in it.

20 So, it's possible that some of  
21 them -- some of the higher level  
22 material went off at that time. We  
23 don't know.

24 MR. BARONE: That's it. That's  
25 all I have.

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MS. AYALA: Any other questions?  
Comments?

This concludes our public  
meeting. Thank you for coming. Have a  
good night.

(Time noted: 6:48 p.m.)

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C E R T I F I C A T E

STATE OF NEW YORK )

) ss.:

COUNTY OF NEW YORK )

I, LINDA A. MARINO, a Registered Professional Reporter, Certified Court Reporter, and Notary Public within and for the State of New York do hereby certify:

I reported the proceedings in the within-entitled matter to the best of my ability, and that the within transcript is a true record of such proceedings.

I further certify that I am not related, by blood or marriage, to any of the parties in this matter and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 30<sup>th</sup> day of July 2009.

*Linda A. Marino*

LINDA A. MARINO, RPR, CCR

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